

# How a Car Works

Overview of Basic Principles and Part of an Automobile

- [Parts of a Bicycle](#)
- [Parts of a Motorcycle](#)
- [Parts of Car](#)

# Parts of a Bicycle

Not a car yet, easier to see parts and determine function. We'll work our way up.

# Parts of a Motorcycle

The image below is my 2017 Kawasaki Ninja 650 ABS



The greatest difference from a bicycle is the addition of an engine. The converts the explosion of gasoline into rotational motion, which spins the rear wheel. The pedals are missing but there is still a rear gear as well as a mechanism to change the front gear. In order for there to be an engine, there now has to be a gas tank, an exhaust, a muffler, and the electronics associated with the engine. The engine generates heat, which has to be removed with a radiator.

Aside from the engine, the motorcycle also has a front and rear suspension, though many bicycles also have these. These are almost identical to the bicycle version, which often have shocks connected to the front wheel, and a swing arm in the rear. This motorcycle has dual front disc brakes a single rear brake.

# Parts of Car

This vehicle is the KMR-14, built by the Columbia Formula SAE team in the 2013-2014 academic year by Bennett Welker, Chris Miller, and Vinod Nimmagadda



This car uses a motorcycle engine, very similar to the one on the motorcycle page but it has 4 cylinders in a row instead of 2. The main difference is that the car has 4 wheels instead of 2. This allow the car to have more grip and sit lower. It will accelerate about as fast as the motorcycle, but go around turns much faster.